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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/441,003	11/16/1999	JOHN ABEDOR	112008-0027C	3749

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BOSTON, MA 02210

EXAMINER

NGUYEN, JOHN QUOC

ART UNIT	PAPER NUMBER
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3654

DATE MAILED: 07/02/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/441,003

Applicant(s)

ABEDOR ET AL.

Examiner

John Q. Nguyen

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 04 April 2002.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,2,4-27 and 32-41 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1, 2, 4-27, and 32-41 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- | | |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). _____. |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____. | 6) <input type="checkbox"/> Other: _____. |

Applicant's election with traverse of Group I, claims 1, 2, 4-27, and 32-41, in Paper No. 17 is acknowledged. The traversal is on the ground(s) that the claims of Group II and III "are particular types of claims to the invention as set forth in the claims of Group I". This is not found persuasive because it is not clear what is meant by "particular types".

The requirement is still deemed proper and is therefore made FINAL.

Claims 1, 2, 4-27, and 32-41 are rejected under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

The following appear to lack sufficient antecedent basis (in the claim): "the current Kalman filter estimate" (claim 34-36).

In claim 1, it is not clear of what element is the third transducer measuring the angular position.

In claim 12, it is not clear how the reel on which the length of tape is estimated is related to the take-up and supply reel. How can measuring the angular positions of the take-up and supply reel be useful in estimating the tape on another reel? Where is the movement of the tape which is measured by the third transducer? And how is this movement related to the another reel?

In claim 9, it is not clear where the initial estimates come from?

In claim 15, it is not clear where the length of tape is located. How is the one or more reels related to the selected reel?

In claim 17, it is not clear what is referred to by "one or more" (line 1). It appears that "and" (line 7) should be deleted.

In claim 20, it appears inaccurate that the tape rotates with the cylindrical member.

In claim 27, steps e and f are not known.

In claim 34, it is not clear how a variable which is a number is related to the step of estimating. In step d, it is not clear of what is the individual measurement.

In all claims, it is not clear how the radius is calculated/estimated from just three angular position measurements, one measurement for each of three variables.

All claims should be revised carefully to correct all other deficiencies similar to the ones noted above.

Claims 1, 2, 4-27, and 32-41 are rejected under 35 U.S.C. 103(a) as being unpatentable over applicant's admitted prior art in view of Hermanns et al (US 4964582) and Macchia (US 4399953).

The admitted prior art discussed on pages 2-3 of the specification discloses substantially all the claimed features. Kalman filters for minimizing errors in predictive computations are old and well known as discussed by Macchia. Hermanns et al. discloses a system utilizing Kalman filters for application to winding apparatus (note column 4, lines 17-27, column 6, lines 17-20, column 7, lines 1-68, column 10, lines 41-63). In view of the prior art as a whole, it would have been obvious to a person having ordinary skill in the art to provide the admitted prior art apparatus with Kalman filters to minimize errors in the way that Kalman filters are known for. The minimum and maximum values and the three-sigma intervals are old and well known in the field of data and statistical analysis so that unreasonable data does not contaminate and

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reduce the accuracy of the analysis. The step-by-step process of collecting data points, such as when to update the data and the time interval in between, etc, would have been within the level of one of ordinary skill in the art and would have been determined through routine engineering experimentation and optimization.

Applicant's arguments filed 7/12/01 have been fully considered but they are not persuasive.

It appears that applicant misread the basis of the rejection which reads "...as being unpatentable over **applicant's admitted prior art** in view of Hermanns et al (US 4964582) and Macchia (US 4399953)." The bold lettering is the part which applicant overlooked and did not appear to have addressed. The applicant's admitted prior art is deemed to have all the features (these features are also deemed old and well known) that applicant alleges to be missing.

Furthermore, it appears that applicant's arguments are directed toward each reference individually, which is not a complete response to a 35 U.S.C. Section 103 rejection because the rejection is based on a combination of references and the test for combining the references is what the disclosures, as a whole, would have fairly suggested to one having ordinary skill in the art.

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within

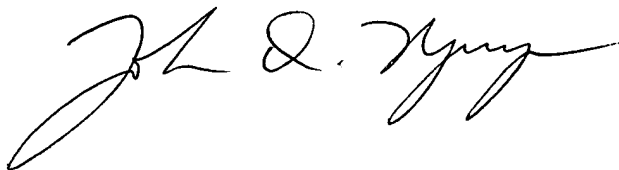
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TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to John Q. Nguyen whose telephone number is (703) 308-2689. The examiner can normally be reached on Monday-Friday from 6:30 AM to 4:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Katherine Matecki, can be reached on (703) 308-2688. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 872-9326 (before Final) and (703) 872-9327 (after Final).

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 306-4177.

A handwritten signature in black ink, appearing to read "John Q. Nguyen". The signature is fluid and cursive, with the first name "John" being the most prominent part.

John Q. Nguyen
Primary Examiner
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